

Amendments to the Claims:

1. (Cancelled)

2. (Cancelled)

3. (Currently Amended) The stereo camera system of claim [[1]] 5, wherein the camera is a still camera and the at least one stereo image is a still image.

4. (Currently Amended) The stereo camera system of claim [[1]] 5, wherein the camera is a video camera and the at least one stereo image is a sequence of video images.

5. (Currently Amended) ~~The A stereo camera system of claim 1,~~
wherein comprising:

stereo imaging means for outputting at least one stereo image, said stereo imaging means including:

5 a camera;

a set of mirrors angled with respect to each other at a predetermined angle relative to a centrally located common plane intersecting said camera, each mirror disposed a predetermined distance from the camera along the common plane, for directing light from an object reflected in said mirrors along a straight line of sight from said mirrors to the camera, for producing a stereo effect in the output of the camera;

recognition means for locating an object of interest in a field of view of the camera and for determining at least one of a distance of the object of interest from the stereo imaging means and a size of the object of interest; and

adjusting means for automatically changing at least one system parameter which affects the spatial resolution of the object of interest based on at least one of the determined distance of the object of interest from the stereo imaging means

and the determined size of the object of interest, the adjusting means ~~comprises~~
20 comprising at least one of:

angle adjustment means for adjusting a predetermined
angle between the set of ~~planar~~ mirrors;

distance adjustment means for adjusting a
predetermined distance between the camera and the set of ~~planar~~
25 mirrors; and

focal length adjustment means for changing a focal
length of the camera.

6. (Currently Amended) The stereo camera system of claim 5,
further comprising a controller for controlling at least one of the angle, distance, and
focal length adjustment means based on an input signal from the recognition means.

7.-11. (Cancelled)

12. (Currently Amended) The stereo camera system of
claim [[1]] 5, wherein the recognition means is a stereo vision system.

13.-20. (Cancelled)

21. (Currently Amended) A method for adjusting a stereo camera
system to control spatial resolution of an object of interest in the field of view of a
stereo imaging means, the method comprising the steps of:

outputting at least one image from the stereo imaging means;

5 locating an object of interest in the field of view of the stereo imaging
means and at least one of the distance of the object of interest from the stereo imaging
means and the size of the object of interest;

automatically changing at least one system parameter which affects the
spatial resolution of the object of interest based on at least one of the located distance
10 of the object of interest from the stereo imaging means and the size of the object of
interest; and

providing said stereo imaging means by further including the steps of:

using a camera to receive light from said object;

establishing a predetermined angle between a set of ~~planar~~ mirrors, the

15 angle being relative to a centrally located common plane intersecting said camera, and adjacent ends of said ~~planar~~ mirrors; mirrors being positioned at a common point of origin; and

establishing a predetermined distance from the camera and the adjacent ends of said ~~planar~~ mirrors for reflecting light from said object from said ~~planar~~ mirrors along a straight line of sight directly to said camera, for producing a stereo effect in the output of the camera;

20 wherein the step of changing at least one system parameter includes at least one of:

adjusting a predetermined angle between the set of
25 mirrors;

adjusting a predetermined distance between the camera
and the set of mirrors; and

changing a focal length of the camera.

22. (Currently Amended) A stereo camera system comprising:

a stereo imaging means including two video cameras, each camera being angled a predetermined angle and distanced a predetermined distance with respect to each other and the object of interest, for outputting at least one stereo image as a sequence of video images;

5 recognition means for locating an object of interest in the field of view of the stereo imaging means and at least one of a distance of the object of interest from the stereo imaging means and the size of the object of interest;

adjusting means for automatically changing at least one system parameter which affects the spatial resolution of the object of interest based on at least one of the located distance of the object of interest from the stereo imaging means and the size of the object of interest, wherein the adjusting means comprises:

10 angle adjustment means for adjusting the predetermined angle of at least one of the two cameras;

15 baseline adjustment means for adjusting the predetermined distance between the two cameras;

distance adjusting means for adjusting a distance between at least one of the two cameras and the object of interest[[,]]~~wherein the distance adjusting means adjusts the distance independent of an angle of the at least one of the two cameras;~~
20 and

focal length adjustment means for changing a focal length of at least one of the two cameras.

23. (New) The stereo camera system of claim 5, wherein the mirrors are planar and have adjacent ends positioned at a common point.

24. (New) The stereo camera system of claim 23, wherein the planar mirrors are disposed for directing the light from the object which is reflected in the planar mirrors directly from the planar mirrors to the camera.

25. (New) The stereo camera system of claim 5, wherein the adjusting means includes an angle adjusting means for adjusting the predetermined angle between the set of mirrors.

26. (New) The stereo camera system of claim 5, wherein the adjusting means includes:

the distance adjusting means for adjusting the predetermined distance between the camera and the set of mirrors.

27. (New) The stereo camera system of claim 5, wherein the adjusting means includes the focal length adjustment means for changing the focal length of the camera.

28. (New) The method of claim 21, wherein the step of changing at least one system parameter includes at least two of:

- adjusting the predetermined angle between the set of mirrors;
- adjusting the predetermined distance between the camera and the set of
- 5 mirrors; and
- changing the focal length of the camera.

29. (New) The method of claim 21, wherein the step of changing at least one system parameter includes all three of:

- adjusting the predetermined angle between the set of mirrors;
- adjusting the predetermined distance between the camera and the set of
- 5 mirrors; and
- changing the focal length of the camera.